MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT
14306 PARK AVE, VICTORVILLE, CA 92392
(760) 245-1661 Fax (760) 245-2699

DATA FORM DCFS
Dry Cleaning Facility Survey
Permit# _____

Fill out one form for each dry cleaning machine or transfer system. Please include descriptions of specific equipment: machines, control devices, and ventilation systems. Additional information can be found on the page four.

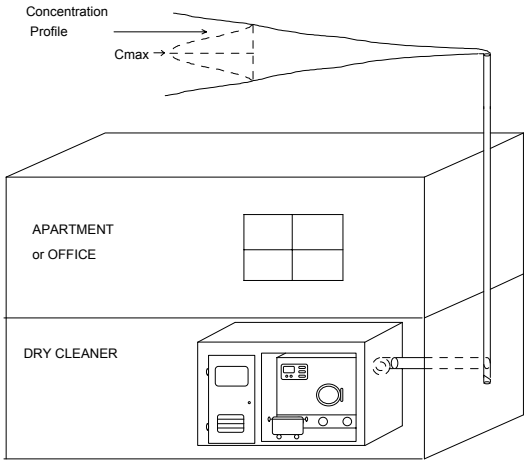
1. Company Name _____ Company No. _____ (if known)
2. Facility Name _____ Facility No. _____ (if known)
3. Facility Address _____ Phone: _____ Fax: _____
4. Mailing Address _____ Email: _____

5. Provide the following information for this source.

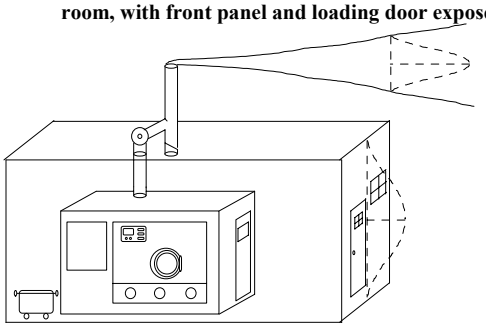
MACHINE TYPE	MODEL	CONTROL DEVICE
Check one: ☐ **Secondary Control (SEC):** 4th and 5th generation machine, has a carbon adsorber integrated with a refrigerated condenser; reduces perc in drum to less than 300 ppm ☐ **Closed-loop (CLOS):** Refrigerated condenser ☐ **Converted Closed-loop (CONV):** Formerly Vented Dry-to-Dry with retrofitted refrigerated condenser ☐ **Vented (VENT):** Vented Dry-to-Dry ☐ **Transfer System (TRAN)** ☐ **Dip Tank (DIP)** ☐ **Other:** _____	Complete information below: Manufacturer: _____ Model Name: _____ Rated Capacity: _____ pounds Description: _____ Date of Installation: _____ If fugitive emissions from the drum are vented when door is opened (after cooldown), check all that apply: ☐ Fugitive emissions are vented through a secondary control or fugitive control system. ☐ Fugitive emissions are vented through a stack. ☐ Fugitive emissions are vented directly to the room.	Check: ☐ **Secondary Control (SEC):** carbon adsorber integrated with a refrigerated condenser; reduces perc in drum < 300 ppm ____ lb carbon ____ loads/regeneration ☐ **Refrigerated Condenser (RC):** on closed-loop machine ☐ **Fugitive Control System (FUG):** Door fan on closed-loop machine that vents to large carbon canister after cooldown is achieved with refrigerated condenser ____ lb carbon ____ loads/regeneration ☐ **Carbon Adsorber (CA):** External carbon adsorber (sniffer) for vented and transfer machines ____ lb carbon ____ lb. clothes per regeneration ☐ **Other:** _____

6. Type of Facility / Building: Check one. Provide a sketch of the dry cleaning facility. If co-located provide a sketch of the entire building.
   - ☐ Co-residential: Share building with residential occupants
   - ☐ Co-commercial: Share building with commercial occupants, no residents--includes malls
   - ☐ Stand-alone: No other occupants in building

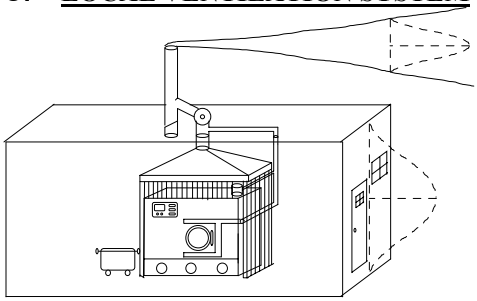
A: VAPOR BARRIER ROOM (machine completely inside room)



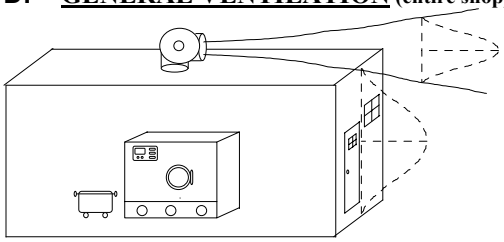
B: PARTIAL VAPOR ROOM (machine partially inside isolation room, with front panel and loading door exposed)



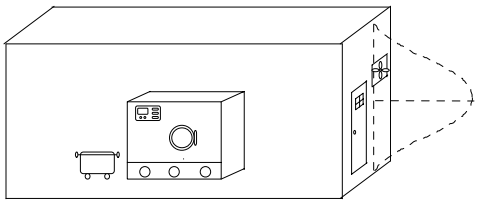
C: LOCAL VENTILATION SYSTEM



D: GENERAL VENTILATION (entire shop)



E: NATURAL VENTILATION (No Fan) or
F: WINDOW FAN



DISPERSION DATA

Answer all questions below that apply to your facility.

7. Check the box for the illustration that best represents your shop's ventilation system: (See right hand column)
   - ☐ **A: Vapor Barrier Room (VBR)**
   - ☐ **B: Partial Vapor Room (PVR)**
   - ☐ **C: Local Ventilation System (LOC)**
   - ☐ **D: General Ventilation (GEN)**
   - ☐ **E: Natural Ventilation (NAT)**
   - ☐ **F: Window Fan (WIN)**

8. Are emissions released vertically through a stack? (check one)
   - ☐ **YES**
   - ☐ **NO**

   a. What is fan airflow rate? Q = _____ CFM
      (>1000 cubic feet / minute)
   b. What is height of stack? H_S = _____ feet
      (from ground level to top of release point)
   c. What is diameter of stack? D_S = _____ inches
      (inside diameter of release point)

9. If you checked 7A (VBR) or 7B (PVR), answer the following:
   a. What are dimensions of VBR or PVR?
      Room Height, H_R = _____ feet
      Room Width, W_R = _____ feet
      Room Length, L_R = _____ feet

10. Building and Shop Dimensions (all facilities must answer):
    a. What are dimensions of facility (shop) or cleaning room?
       Facility Height, H_F = _____ feet
       Facility Width, W_F = _____ feet
       Facility Length, L_F = _____ feet

    b. What are dimensions of the entire building?
       Building Height, H_B = _____ feet
       Building Width, W_B = _____ feet
       Building Length, L_B = _____ feet

    c. What are dimensions of nearby buildings (within 150 feet)? Note on sketch if more than one nearby building.
       Building Height, H_{B2} = _____ feet
       Building Width, W_{B2} = _____ feet
       Building Length, L_{B2} = _____ feet

11. Record distance to receptors (all facilities must answer):
    Distances are in feet from center of shop to nearest:
    a. off-site workplace D_C = _____ feet
    b. residence (boundary) D_R = _____ feet
    c. school(s) Ds = _____ feet
    d. other sensitive receptor? Do = _____ feet

12. Clothes & Materials Cleaned: _____ pounds/year.

13. a. Dry Cleaning Machine Usage: _____hr/day _____days/week; _____weeks/yr
    b. Facility Open: _____hr/day; _____days/week; _____weeks/yr

14. Type of Solvent Used: Check one and provide a copy of the Material Safety Data Sheet (MSDS) for each solvent use at this facility.
    ☐ Perc ☐ Petroleum ☐ Valclene [CFC-113] ☐ Stoddard ☐ Exxon DF2000 ☐ GreenEarth ☐ Rynex
    ☐ Other: _____

15. Complete data below for annual reporting period of the 2001 Calander year or the time period stated.
    15a. Initial Solvent Inventory, January 1, 2001 (0r)_____ a._____gallons
    15b. Solvent Purchases in reported period: b._____gallons
    (attach purchase records)
    15c. Waste Credit:
    (attach hazardous waste manifest)
    15c1. Liquid waste*
    gallons waste_____gallons
    % solvent_____%
    solvent _____gallons
    15c2. Filter**
    filters_____number
    solvent per filter_____gallons
    Solvent _____ gallons
    15c3. Total Waste Credit c._____gallons
    15d. Closing Inventory, December 31,2001:(or)_____ d._____gallons

    15e. Total Solvent Emissions (a+b-c-d) e._____gallons

16. a. Waste Water: _____ gallons per year
    b. Disposition [Method of Disposal]: Check one
    ☐ Licensed Hauler ☐ Evaporator ☐ Sewer ☐ Other: _____
    c. Hazardous Waste Hauler Name: _____ City: _____

CERTIFICATION
(Please print or type)

I,_____(name), _____(title), declare and state that I am a principal or responsible official of_____ (company/ business name). I have read the attached documents (cover letter and Dry Cleaning Facility Survey) and I declare, under penalty of perjury, that the information contained therein is to the best of my knowledge true and correct. Executed this_____day of _____ , _____(month, year) at_____, _____ (county, city), California.

_____
signature

Additonal Information

* Default values are 35% for still residue.
** Default values are .5 gal/cartridge (standard or split) and 1.0 gal/jumbo cartridge.

Thank you for completing this form. The District will use this information to evaluate the risk from your dry cleaning facility.

Risk from a dry cleaning facility is dependent on the amount of emissions, proximity (nearness) to receptors (residential, sensitive or workplace) (**sensitive receptors** include **schools, nursing homes, medical facilites,** etc.), local meteorology (weather conditions), and how the emissions are released (type of ventilation system used). Ventilation enhances dispersion (reduces risk) and reduces the exposure inside the building where the machine is operating. Six major types of ventilation used in dry cleaners (in descending order of effectiveness) are Vapor Barrier Rooms, Partial Vapor Rooms, local ventilation, general ventilation, window fans, and natural ventilation. A secondary control system or a fugitive control system also reduces fugitive emissions and associated risk. Building dimensions may also affect dispersion.

A Vapor Barrier Room (VBR) is constructed of diffusion resistant materials and completely surrounds the dry cleaning machine. VBRs may be required for co-residential dry cleaning facilities and recommended for non-residential facilities that result in high exposures of perc to adjacent residential, sensitive, or commercial/industrial receptors (particularly in co-located situations such as multistory buildings and shopping malls that do not have good separation between units). A Partial Vapor Room (PVR) encloses the back of a dry cleaning machine in a small room with the front panel and loading door exposed for convenient loading and unloading. PVRs may be necessary for some non-residential facilities in order to achieve acceptable risks. Some existing facilities have General Ventilation (GEN) (large fans that vent the entire shop) or Natural Ventilation (NAT) (no fans). Local Ventilation (LOC) (fume hoods and shrouds) and GEN depend on high rates of airflow and large fans to be effective. VBR and PVR are more effective and may be less costly to operate considering the smaller fans needed to achieve good capture. Most new facilities may need VBRs, PVRs, LOC, or GENs.

Natural Ventilation (NAT) (open windows and doors -- no fans) relies on wind and convective forces to move air. This is not very effective, dispersion is usually very poor, and nearby receptors may be exposed to a high risk. In addition, people within the building are not adequately protected. Natural ventilation is usually acceptable for a stand-alone facility with a reasonable buffer zone (vacant area around the facility that separates the dry cleaner from nearby people in order to protect them). A buffer zone of 200-300 feet is usually adequate for an existing facility that uses less than 100 gallons of Perc per year and uses natural ventilation. For facilities using Window Fans (WIN) emissions are also released near ground level and poorly dispersed. Consequently, risk is similar to facilities using natural ventilation and similar buffer zones are necessary. If a facility is located near residential receptors, uses more than 100 gallons of Perc, or is co-located with other commercial businesses, enhanced ventilation (VBR or PVR) may be necessary.

The District uses the following formulas to calculate emissions:

Solvent emissions = (inventory at start of year) + (solvent purchases) - (waste credit) - (inventory at end of year)

Waste credit = (still residue) * (solvent content in still residue) + (number of filter cartridges) * (solvent per cartridge)

Default values are 35 volume % for still residue, 0.5 gal/cartridge (standard or split), and 1.0 gal/jumbo cartridge.

Note that we do not allow waste credit for more than 25% of solvent consumption unless fully explained and documented by the facility. **Do not include waste water in waste credit.**